

rials, labour and surgical procedures) and are dependent on TTH. **RESULTS:** After 18,000 iterations the average TTH (cost) fell from 25.9 (€2136) to 22.0 weeks (€1987) for small ulcers (<10cm²) and from 39.0 (€7047) to 33.0 weeks (€6362) for large ulcers (≥10cm²) when UK-97-0005 Device was added. Corresponding coefficients of variation ranged between 99% and 125% for TTH and 86% and 120% for costs. The main cost driver was labour costs (75% and 84% for small and large ulcers, respectively). The remaining costs were split equally on materials and surgical procedures. Break-even was reached at a relative efficacy of UK-97-0005 Device of 7%. On the basis of an average prevalence of VLU of 0.2% in Sweden, the total cost of treating VLU-patients with UK-97-0005 Device was estimated to €59.7 million. **CONCLUSION:** At a relative efficacy above 7%, UK-97-0005 Device was shown to be a dominant alternative compared to conventional treatment of VLU in Sweden.

INPATIENT—RELATED STUDIES

HS1

COST-EFFECTIVENESS AND BUDGET IMPACT OF THE SIROLIMUS-ELUTING STENT IN THE STENT ERA

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OBJECTIVES: Sirolimus-eluting coronary stents (SES) are able to strikingly reduce in-stent restenoses as compared with conventional bare metal stents (BMS) and entered the European market in April 2002. We thus aimed at estimating SES expected economic impact on the national health-care system (NHS) in Italy. **METHODS:** A decision model was developed in Excel and four revascularization strategies were compared (PTCA, BMS, SES, CABG) in a population of patients with new stenoses in native coronary arteries. Four subgroups of lesions were studied, either single-vessel (small vessel, long lesion, Benestent-like lesion) or multivessel. Diabetics were separately analyzed. Incremental cost per revascularization avoided and cost per event-free year gained were calculated at a 1 and 5-year time frame and 3% discount rate was applied to both costs and efficacy. Input data were from the published trials: BARI, BENESTENT I&II, ARTS, RAVEL. A survey of 3298 patients in 3 cathlabs captured the real-life casemix and current practice and allowed to customize the model. Italian NHS charges were used to estimate the financial impact. **RESULTS:** In the first year after revascularization, as compared with BMS, SES averted 123–182 revascularizations in 1000 patients and gained 0.6–1.9 event-free months per patient; SES also saved €1036–€1800 per patient: a larger gain was achieved in those with multivessel disease and in the 5-year horizon, provided that the SES efficacy was

constant over time. In diabetics the SES averted 15% more revascularizations and increased savings by 12%. In single vessel disease the breakeven point of SES efficacy was 72% and that of charge for stenting with SES was €7242 (17% higher than baseline). Overall forecasted savings to the NHS would be €38,927,652 per year, if SES replaced all the stents. **CONCLUSIONS:** SES is cost saving in a DRG-based reimbursement NHS, however, the uptake of SES can be supported through substantial update of charges while keeping a net economic gain.

HS2

COST-EFFECTIVENESS OF LEUKODEPLETION IN MAJOR CARDIAC SURGERY

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OBJECTIVES: A recent study in cardiac surgery showed a decrease in infections and mortality in patients receiving leukocyte-depleted erythrocytes (LD) compared to buffy-coat depleted packed red blood cells (PC). However, cost-effectiveness data on leukoreduction of red blood cell concentrates is scarce. We estimated cost-effectiveness of LD over PC from a clinical trial involving valve and CABG surgery patients, from the hospital perspective. **METHODS:** From May 1999 to May 2001, in two university hospitals (Amsterdam and Leiden, Netherlands), 496 adult patients undergoing cardiac valve surgery (±CABG) were randomised double-blind into two groups (LD or PC). The rates of in-hospital mortality and mortality within 90 days after surgery were primary endpoints. Cost-effectiveness in net costs per life-year gained (LYG) was established using standard pharmaco-economic methods. **RESULTS:** In-hospital mortality was 10.1% and 5.5% for PC and LD respectively (OR 0.99–4.00; *p* = 0.05). Mortality in 90 days was 12.7% and 8.4% for PC and LD respectively (OR 0.84–2.73; *p* = 0.16). Average costs of ICU-care, standard care, antibiotics and blood product utilisation were €11,863.07 and €10,914.02 for PC and LD respectively. Relative to PC, LD yields an estimated 2.15 undiscounted LYG (0.70y at 3%, 0.21y at 5%). Ergo, net costs are lower for LD and health outcomes better. **CONCLUSIONS:** From this clinical trial involving cardiac surgery patients undergoing valve surgery with or without CABG, leukodepleting red blood cell concentrates appears to be a dominant strategy in this preliminary evaluation.